IN THE CLAIMS:

Please amend the claims as follows:

6/2/1

6. (Amended) The method according to claim 2, wherein the control valve is adjusted to provide for pulsating operation to prevent clogging of the valve.

7/1

7. (Amended) The method according to claim 1, wherein polymer powder is continuously withdrawn from a point above a fluidization plate.

8/1

8. (Amended) The method according to claim 1, wherein polymer powder is continuously withdrawn from a point below the bed level.

9/1

9. (Amended) The method according to claim 1, wherein the discharge line and the control valve are discontinuously backflushed with a flushing gas flow.

10/1

10. (Amended) The method according to claim 1, comprising

- using a gas phase reactor having a mechanically mixed zone of the fluidized bed, and
- continuously withdrawing polymer powder from said mixed zone.

11. (Amended) The method according to claim 1, wherein polymer powder is also separately withdrawn from the reactor using a discontinuous discharge device. 11/1

12. (Amended) The method according to claim 1, wherein the polymer powder is withdrawn together with gas from the reactor, the gas is separated from the polymer powder, and the separated gas is recycled into the reactor. 12/1

13. (Amended) The method according to claim 1, wherein polymer agglomerates are withdrawn from the reactor using a discharge line with a discontinuously operated discharge valve. 13/1

19. (Amended) The method according to claim 1, wherein the catalyst is fed into the gas phase reactor as a stream comprising polymer and active catalyst together with reaction medium. 19/1

22. (Amended) The method according to claim 1, wherein the monomers are selected from the group of C_2 to C_{16} olefins and mixtures thereof. 22/1

23. (Amended) The method according to claim 1, wherein the monomer is selected from the group of ethylene, propylene, 1-butene, 4-methyl-1-pentene, 1-hexene, dienes, and cyclic olefins, and mixtures thereof. 23/1

24/1

24. (Amended) The method according to claim 1, wherein the polymer that is continuously withdrawn is either directly or indirectly fed into another gas phase reactor.

25/14

25. (Amended) The method according to claim 14, wherein the collecting vessel is connected to a gas separator, said polymer powder being pneumatically conducted from the collecting vessel to the gas separator.

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In the Claims

1. A method of producing a polymer in a continuously operated gas phase reactor, comprising
   - polymerizing at least one monomer in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor,
   - continuously withdrawing polymer powder from the reactor;
   - adjusting the discharge rate of the polymer powder so as to maintain a constant bed level during polymerization; and
   - withdrawing and separately recovering particle agglomerates from the reactor.

2. The method according to claim 1, wherein the discharge rate of the polymer powder is adjusted by using a continuously operated control valve.

3. The method according to claim 2, wherein the continuously operated valve is a ball valve, a V-ball valve or a hose valve.

4. The method according to claim 2 or 3, wherein the polymer powder is withdrawn via an outlet nozzle connected to the control valve, and said nozzle is provided with a grid flush mounted at the reactor wall to prevent lumps from entering the pipe.

5. The method according to any of claims 2 to 3, wherein the operation of the control valve is adjusted by using a control signal obtained from a bed level controller.

6. The method according to any of claims 2 to 5, wherein the control valve is adjusted to provide for pulsating operation to prevent clogging of the valve.

7. The method according to any of the preceding claims, wherein polymer powder is continuously withdrawn from a point above a fluidization plate.

8. The method according to any of the preceding claims, wherein polymer powder is continuously withdrawn from a point below the bed level.

9. The method according to any of the preceding claims, wherein the discharge line and the control valve are discontinuously backflushed with a flushing gas flow.

10. The method according to any of the preceding claims, comprising
- using a gas phase reactor having a mechanically mixed zone of the fluidized bed, and
- continuously withdrawing polymer powder from said mixed zone.

10/1-9

11 The method according to any of the preceding claims, wherein polymer powder is also separately withdrawn from the reactor using a discontinuous discharge device.

11/1-10

12. The method according to any of the preceding claims, wherein the polymer powder is withdrawn together with gas from the reactor, the gas is separated from the polymer powder, and the separated gas is recycled into the reactor.

12/1-11

13. The method according to any of the preceding claims, wherein polymer agglomerates are withdrawn from the reactor using a discharge line with a discontinuously operated discharge valve.

13/1-12

(14)

14. A method of discharging polymer from a continuously operated gas phase reactor, wherein at least one monomer is polymerized in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor, comprising
- continuously withdrawing polymer powder from the reactor;
- feeding the withdrawn polymer powder into a collecting vessel, wherein lumps are separated from finely-divided polymer powder and at least a part of the gas is separated from the solid material;
- recovering the lumps, and
- adjusting the discharge rate of the polymer powder so as to maintain a constant bed level during polymerization.

15. The method according to claim 14, wherein the separated gas is recycled into the reactor, said collecting vessel being provided with a return valve for adjusting the gas flow recycled to the reactor.

15/14

16. The method according to claim 15, wherein the return valve is controlled by the fluidized bed level of the reactor.

16/15/14

17. The method according to claim 16, wherein the polymer level in the vessel is

17/16/15/14

controlled by using a continuously operating control valve.

18/14to17

18. The method according to any of claims 14 to 17, wherein the collecting vessel is provided with a screen for separating lumps.

19/1-18

19. The method according to any of the preceding claims, wherein the catalyst is fed into the gas phase reactor as a stream comprising polymer and active catalyst together with reaction medium.

20/1-19

20. The method according to claim 19, wherein the catalyst is fed into the gas phase reactor from a slurry reactor.

21/20/1-19

21. The method according to claim 20, wherein the slurry reactor is a loop reactor.

22/1-21

22. The method according to any of the preceding claims, wherein the monomers are selected from the group of C_2 to C_{16} olefins and mixtures thereof.

23/1-22

23. The method according to any of the preceding claims, wherein the monomer is selected from the group of ethylene, propylene, 1-butene, 4-methyl-1-pentene, 1-hexene, dienes, and cyclic olefins, and mixtures thereof.

24/1-23

24. The method according to any of the preceding claims, wherein the polymer that is continuously withdrawn is either directly or indirectly fed into another gas phase reactor.

25/14-24

25. The method according to any of claims 14 to 24, wherein the collecting vessel is connected to a gas separator, said polymer powder being pneumatically conducted from the collecting vessel to the gas separator.

(26)

26. An apparatus for discharging polymer from a continuously operated gas phase reactor, wherein at least one monomer is polymerized in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor, said appartus comprising

- an outlet nozzle communicating with the fluidized bed of the gas phase reactor,
- a collecting vessel placed in communication with the outlet nozzle for separating gas from solid material, with a screen for collecting the lumps and a separate discharge nozzle for the lumps;

- a continuously operating valve for adjusting the amount of polymer powder withdrawn from the reactor via the outlet nozzle; and
- means for controlling the operation of the valve for adjusting the discharge rate of the polymer powder so as to maintain a constant bed level during polymerization.

27. The apparatus according to claim 26, wherein the continuously operating valve is connected to the collecting vessel. 27/26

28. The apparatus according to claim 26 or 27, wherein the collecting vessel comprises a gas space which is connected to the gas phase reactor via a gas conduit. 28/26 or 27

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